IN THE CLAIMS:

1.   (Currently Amended) A gaming machine, comprising:

a gaming controller operable, in response to at least one wager, to control a single game of chance including a plurality of game outcomes associated with the single game of chance or to simultaneously control a plurality of games of chance including a plurality of separate game outcomes associated, respectively, with each of the plurality of games of chance wherein the plurality of games of chance are played simultaneously by ~~the~~ a user;

an input mechanism for receiving cash or an indicia of credit used to make the at least one wager;

memory operable to store 3-D data corresponding to a 3-D gaming environment;

a display operable to display the plurality of game outcomes or the plurality of separate game outcomes;

gaming logic operable to generate the plurality of game outcomes or the plurality of separate game outcomes in the 3-D gaming environment wherein said game outcomes or said separate game outcomes are generated as a plurality of vertices specified in a 3-D coordinate system associated with the 3-D gaming environment, said plurality of vertices defining a plurality ~~a~~ of surfaces in the 3-D gaming environment on which textures are applied;

gaming logic operable to render a plurality of images of the 3-D gaming environment for presentation on the display wherein only a portion of the plurality of game outcomes or only a portion of the plurality of separate game outcomes are viewable on the display at one time and wherein the portion of the plurality of game outcomes or the portion of the plurality of separate game outcomes that are viewable on the display is determined based upon at least a position of a virtual camera specified using the 3-D coordinate system of the 3-D gaming environment wherein the position of the virtual camera in the 3-D gaming environment determines a portion of the plurality of surfaces in the 3-D gaming environment that are visible in each of the plurality of images rendered from the 3-D gaming environment, said rendering including projecting the surfaces defined in the 3-D coordinate system to a two-dimensional projection surface;

gaming logic operable to render the plurality of images of the 3-D gaming environment for presentation on the display, the images depicting manipulation of one or more aspects of the 3-D gaming environment by the user including manipulations that allow the user to view different portions of the plurality of game outcomes or the plurality of separate game outcomes;

a user interface operable to provide user input to facilitate the manipulation of the one or more aspects of the 3-D gaming environment by the user; and

a housing configured to enclose the gaming controller, said housing coupled to the input mechanism, the display and the user interface.

2.   (Original) The gaming machine of claim 1 wherein manipulation of the one or more aspects of the 3-D gaming environment comprises any of changing a viewpoint perspective within the 3-D gaming environment, changing a position within the 3-D gaming environment, moving an object, reshaping an object, eliminating an object, creating an object, and causing objects to interact.

3.   (Original) The gaming machine of claim 1 wherein the user interface comprises any of a touchscreen, a trackball, one or more buttons, a joystick, a body-tracking device, a positional sensor, one or more inertial sensors, a wand, a mouse, a touchpad, a pressure sensitive device, a discrete device, a voice recognition system, thermal sensors, optical sensors, or any combination thereof.

4.   (Currently Amended) The gaming machine of claim 1 <u>wherein</u> the gaming logic ~~being~~ <u>is</u> further operable to render the plurality of images to depict the plurality of game outcomes or the plurality of separate game outcomes in an arrangement.

5.   (Previously Presented) The gaming machine of claim 4 wherein the gaming logic is operable to render at least one of the images which presents all of the game outcomes or all of the separate game outcomes simultaneously from at least one perspective.

6.   (Previously Presented) The gaming machine of claim 4 wherein the gaming logic is operable to render at least one of the images which presents less than all of the game outcomes or all of the separate game outcomes simultaneously from at least one perspective.

7.   (Previously Presented) The gaming machine of claim 4 wherein the manipulation of the one or more aspects of the 3-D gaming environment comprises changing a viewpoint perspective within the 3-D gaming environment such that the plurality of game outcomes or the plurality of separate game outcomes are viewable from a plurality of different perspectives.

8.   (Original) The gaming machine of claim 7 wherein gaming logic is operable to constrain the changing of the viewpoint perspective with reference to the arrangement.

9.   (Previously Presented) The gaming machine of claim 8 wherein the gaming logic is operable to constrain the changing of the viewpoint perspective by employing only degrees of freedom which result in each of the images showing at least a portion of the arrangement of the plurality of game outcomes or the plurality of separate game outcomes.

10.   (Original) The gaming machine of claim 4 wherein the arrangement comprises any of a 2-D planar array, a 2-D planar array receding to a point within the 3-D gaming environment, a 2-D array on a curved surface, a 3-D array, a pillar configuration on one or more surfaces of a cylinder, a reel configuration on surfaces of a plurality of reels, a polyhedral configuration on surfaces of a polyhedron, a boundary configuration on surfaces bounding the 3-D gaming environment, and a room configuration in a plurality of sub-spaces within the 3-D gaming environment.

11.   (Original) The gaming machine of claim 1 wherein the gaming logic is operable to render the plurality of images such that the manipulation of the one or more aspects of the 3-D gaming environment is constrained in at least one of a plurality of degrees of freedom associated with the 3-D gaming environment.

12.   (Original) The gaming machine of 11 wherein the manipulation of the one or more aspects of the 3-D gaming environment comprises changing a viewpoint perspective within the 3-D gaming environment thereby simulating navigation within the 3-D gaming environment.

13.   (Original) The gaming machine of 12 wherein changing the viewpoint perspective comprises allowing the viewpoint perspective to change in only one of the degrees of freedom.

14.   (Original) The gaming machine of claim 12 wherein changing the viewpoint perspective comprises allowing the viewpoint perspective to change only in fewer than all of the degrees of freedom.

15.   (Original) The gaming machine of claim 12 wherein the navigation is constrained to a predetermined path within the 3-D gaming environment.

16.   (Currently Amended) The gaming machine of claim 11 wherein the degrees of freedom ~~comprises~~ <u>comprise</u> up/down, forward/reverse, left/right, roll, pitch, yaw, and zoom in/zoom out.

17.   (Original) The gaming machine of claim 11 wherein the degrees of freedom correspond to any of a Cartesian coordinate system, a polar coordinate system, and a spherical coordinate system.

18.   (Original) The gaming machine of claim 1 wherein the gaming logic is further operable to provide sound effects corresponding to the manipulation of the one or more aspects of the 3-D gaming environment.

19.   (Original) The gaming machine of claim 18 wherein the sound effects simulate location and motion.

20.   (Currently Amended) A gaming machine, comprising:

a gaming controller operable, in response to at least one wager, to control a single game of chance including a plurality of game outcomes associated with the single game of chance or to simultaneously control a plurality of games of chance including a plurality of separate game

outcomes associated, respectively, with each of the plurality of games of chance wherein the plurality of games of chance are played simultaneously by the user;

memory operable to store 3-D data corresponding to a 3-D gaming environment;

an input mechanism for receiving cash or an indicia of credit used to make the at least one wager;

a display operable to display the plurality of game outcomes or the plurality of separate game outcomes;

gaming logic operable to generate the plurality of game outcomes or the plurality of separate game outcomes in the 3-D gaming environment wherein said game outcomes or said separate game outcomes are generated as a plurality of vertices specified in a 3-D coordinate system associated with the 3-D gaming environment, said plurality of vertices defining a plurality a̶ of surfaces in the 3-D gaming environment on which textures are applied;

gaming logic operable to render a plurality of images of the 3-D gaming environment for presentation on the display, each of the images depicting fewer than all of the plurality of game outcomes or fewer than all of the plurality of separate game outcomes, successive ones of the images facilitating navigation among all of the game outcomes or among all of the separate game outcomes wherein a portion of the plurality of game outcomes or a portion of the plurality of separate game outcomes that are viewable on the display is determined based upon at least a position of a virtual camera specified using the 3-D coordinate system of the 3-D gaming environment wherein the position of the virtual camera in the 3-D gaming environment determines a portion of the plurality of surfaces in the 3-D gaming environment that are visible in each of the plurality of images rendered from the 3-D gaming environment, said rendering including projecting the surfaces defined in the 3-D coordinate system to a two-dimensional projection surface; and

a housing configured to enclose the gaming controller, said housing coupled to the input mechanism, the display and the user interface.[[.]]

21.   (Currently Amended) The gaming machine of claim 20 wherein the plurality of game outcomes or the plurality of separate game outcomes a̶r̶e̶ is configured in an arrangement comprising any of a 2-D planar array, a 2-D planar array receding to a point within the 3-D gaming environment, a 2-D array on a curved surface, a 3-D array, a pillar configuration on one

or more surfaces of a cylinder, a reel configuration on surfaces of a plurality of reels, a polyhedral configuration on surfaces of a polyhedron, a boundary configuration on surfaces bounding the 3-D gaming environment, and a room configuration in a plurality of sub-spaces within the 3-D gaming environment.

22. (Previously Presented) The gaming machine of claim 20 wherein the gaming logic is operable to render the images such that the game outcomes or the separate game outcomes are viewable from a plurality of perspectives within the 3-D gaming environment.

23. (Previously Presented) The gaming machine of claim 22 wherein the game outcomes or the separate game outcomes are presented in an arrangement within the 3-D gaming environment, the gaming logic being operable to constrain the plurality of perspectives from which the game outcomes or the separate game outcomes are viewable with reference to the arrangement.

24. (Previously Presented) The gaming machine of claim 23 wherein the arrangement comprises a virtual planar array of the game outcomes or the separate game outcomes, and wherein the gaming logic is operable to constrain the plurality of perspectives to a portion of the 3-D gaming environment above the array.

25. (Previously Presented) The gaming machine of claim 23 wherein the arrangement comprises an array of the game outcomes or the separate game outcomes on a substantially cylindrical surface, and wherein the gaming logic is operable to constrain the plurality of perspectives such that the game outcomes or the separate game outcomes may only be viewed normal to the cylindrical surface from a fixed distance.

26. (Original) The gaming machine of claim 23 wherein the arrangement comprises pay lines on a plurality of virtual slot machine reels, and wherein the gaming logic is operable to constrain the plurality of perspectives to viewing of the pay lines.

27.   (Original) The gaming machine of claim 23 wherein the gaming logic is operable to constrain the plurality of perspectives by restricting at least one of a plurality of degrees of freedom.

28.   (Currently Amended) The gaming machine of claim 27 wherein the degrees of freedom ~~comprises~~ <u>comprise</u> up/down, forward/reverse, left/right, roll, pitch, yaw, and zoom in/zoom out.

29.   (Original) The gaming machine of claim 27 wherein the degrees of freedom correspond to any of a Cartesian coordinate system, a polar coordinate system, and a spherical coordinate system.

30.   (Original) The gaming machine of claim 20 further comprising a user interface operable to provide user input to facilitate the navigation among the outcomes.

31.   (Original) The gaming machine of claim 30 wherein the user interface comprises any of a touchscreen, a trackball, one or more buttons, a joystick, a body-tracking device, a positional sensor, one or more inertial sensors, a wand, a mouse, a touchpad, a pressure sensitive device, a discrete device, a voice recognition system, thermal sensors, optical sensors, or any combination thereof.

32.   (Currently Amended) A method for facilitating manipulation of at least some aspects of a 3-D gaming environment presented on a display of a gaming machine, the gaming machine being operable to facilitate play of one or more games of chance, the method comprising

in response to at least one wager, controlling a single game of chance including a plurality of game outcomes associated with the single game of chance or controlling simultaneously a plurality of games of chance including a plurality of separate game outcomes associated, respectively, with each of the plurality of games of chance wherein the plurality of games of chance are played simultaneously by the user;

generating the plurality of game outcomes or the plurality of separate game outcomes in the 3-D gaming environment wherein said game outcomes or said separate game outcomes are generated as a plurality of vertices specified in a 3-D coordinate system associated with the 3-D gaming environment, said plurality of vertices defining a plurality a surfaces in the 3-D gaming environment on which textures are applied; and

rendering a plurality of images of the 3-D gaming environment for presentation on the display wherein a only portion of the plurality of game outcomes or only a portion of the plurality of separate game outcomes are viewable on the display at one time and wherein the portion of the plurality of game outcomes or the portion of the plurality of separate game outcomes that are viewable on the display is determined based upon at least a position of a virtual camera specified using the 3-D coordinate system of the 3-D gaming environment wherein the position of the virtual camera in the 3-D gaming environment determines a portion of the plurality of surfaces in the 3-D gaming environment that are visible in each of the plurality of images rendered from the 3-D gaming environment, said rendering including projecting the surfaces defined in the 3-D coordinate system to a two-dimensional projection surface;

the images depicting manipulation of the one or more aspects of the 3-D gaming environment by a user using a user interface.

33.   (Original) The method of claim 32 wherein manipulation of the one or more aspects of the 3-D gaming environment comprises any of changing a viewpoint perspective within the 3-D gaming environment, changing a position within the 3-D gaming environment, moving an object, reshaping an object, eliminating an object, creating an object, and causing objects to interact.

34.   (Original) The method of claim 32 wherein the user interface comprises any of a touchscreen, a trackball, one or more buttons, a joystick, a body-tracking device, a positional sensor, one or more inertial sensors, a wand, a mouse, a touchpad, a pressure sensitive device, a discrete device, a voice recognition system, thermal sensors, optical sensors, or any combination thereof.

35.   (Currently Amended) The method of claim 32 wherein the plurality of game outcomes or the plurality of separate game outcomes are configured in an arrangement.

36.   (Currently Amended) The method of claim 35 wherein at least one of the images presents all of the plurality of game outcomes or all of the plurality of separate game outcomes simultaneously from at least one perspective.

37.   (Currently Amended) The method of claim 35 wherein at least one of the images presents less than all of the plurality of game outcomes or all of the plurality of separate game outcomes simultaneously from at least one perspective.

38.   (Previously Presented) The method of claim 35 wherein the manipulation of the one or more aspects of the 3-D gaming environment comprises changing a viewpoint perspective within the 3-D gaming environment such that the plurality of game outcomes or the plurality of separate game outcomes are viewable from a plurality of different perspectives.

39.   (Original) The method of claim 38 wherein the changing of the viewpoint perspective is constrained with reference to the arrangement.

40.   (Previously Presented) The method of claim 39 wherein the changing of the viewpoint perspective is constrained by employing only degrees of freedom which result in each of the images showing at least a portion of the arrangement of the plurality of game outcomes or the arrangement of the plurality of separate game outcomes.

41.   (Original) The method of claim 35 wherein the arrangement comprises any of a 2-D planar array, a 2-D planar array receding to a point within the 3-D gaming environment, a 2-D array on a curved surface, a 3-D array, a pillar configuration on one or more surfaces of a cylinder, a reel configuration on surfaces of a plurality of reels, a polyhedral configuration on surfaces of a polyhedron, a boundary configuration on surfaces bounding the 3-D gaming environment, and a room configuration in a plurality of sub-spaces within the 3-D gaming environment.

42.   (Original) The method of claim 32 wherein the manipulation of the one or more aspects of the 3-D gaming environment is constrained in at least one of a plurality of degrees of freedom associated with the 3-D gaming environment.

43.   (Original) The method of 42 wherein the manipulation of the one or more aspects of the 3-D gaming environment comprises changing a viewpoint perspective within the 3-D gaming environment thereby simulating navigation within the 3-D gaming environment.

44.   (Original) The method of 43 wherein changing the viewpoint perspective comprises allowing the viewpoint perspective to change in only one of the degrees of freedom.

45.   (Original) The method of claim 43 wherein changing the viewpoint perspective comprises allowing the viewpoint perspective to change only in fewer than all of the degrees of freedom.

46.   (Original) The method of claim 43 wherein the navigation is constrained to a predetermined path within the 3-D gaming environment.

47.   (Currently Amended) The method of claim 42 wherein the degrees of freedom ~~comprises~~ <u>comprise</u> up/down, forward/reverse, left/right, roll, pitch, yaw, and zoom in/zoom out.

48.   (Original) The method of claim 42 wherein the degrees of freedom correspond to any of a Cartesian coordinate system, a polar coordinate system, and a spherical coordinate system.

49.   (Original) The method of claim 32 further comprising providing sound effects corresponding to the manipulation of the one or more aspects of the 3-D gaming environment.

50.   (Original) The method of claim 49 wherein the sound effects simulate location and motion.

51.   (Currently Amended) A method for presenting a plurality of separate game outcomes of a plurality of games of chance or a plurality of game outcomes for a single game of chance on a display of a gaming machine, the method comprising:

in response to at least one wager, controlling the single game of chance including the plurality of game outcomes associated with the single game of chance or controlling simultaneously the plurality of games of chance including the plurality of separate game outcomes associated, respectively, with each of the plurality of games of chance wherein the plurality of games of chance are played simultaneously by the user;

generating the plurality of game outcomes or the plurality of separate game outcomes in the 3-D gaming environment wherein said game outcomes or said separate game outcomes are generated as a plurality of vertices specified in a 3-D coordinate system associated with the 3-D gaming environment, said plurality of vertices defining a plurality a of surfaces in the 3-D gaming environment on which textures are applied;

rendering a plurality of images of a 3-D gaming environment for presentation on the display, each of the images depicting fewer than all of the plurality of game outcomes or fewer than all of the plurality of separate game outcomes, successive ones of the images facilitating navigation among all of the plurality of game outcomes or the plurality of separate game outcomes within the 3-D gaming environment wherein a portion of the plurality of game outcomes or a portion of the plurality of separate game outcomes that are viewable on the display is determined based upon at least a position of a virtual camera specified using the 3-D coordinate system of the 3-D gaming environment wherein the position of the virtual camera in the 3-D gaming environment determines a portion of the plurality of surfaces in the 3-D gaming environment that are visible in each of the plurality of images rendered from the 3-D gaming environment, said rendering including projecting the surfaces defined in the 3-D coordinate system to a two-dimensional projection surface[[;]].

52.   (Previously Presented) The method of claim 51 wherein the plurality of game outcomes or the plurality of separate game outcomes are configured in an arrangement comprising any of a 2-D planar array, a 2-D planar array receding to a point within the 3-D

gaming environment, a 2-D array on a curved surface, a 3-D array, a pillar configuration on one or more surfaces of a cylinder, a reel configuration on surfaces of a plurality of reels, a polyhedral configuration on surfaces of a polyhedron, a boundary configuration on surfaces bounding the 3-D gaming environment, and a room configuration in a plurality of sub-spaces within the 3-D gaming environment.

53.   (Previously Presented) The method of claim 51 wherein the images depict the plurality of game outcomes or the plurality of separate game outcomes from a plurality of perspectives within the 3-D gaming environment.

54.   (Previously Presented) The method of claim 53 wherein the plurality of game outcomes or the plurality of separate game outcomes are presented in an arrangement within the 3-D gaming environment, and wherein the plurality of perspectives from which the plurality of game outcomes or the plurality of separate game outcomes may be viewed is constrained with reference to the arrangement.

55.   (Previously Presented) The method of claim 54 wherein the arrangement comprises a virtual planar array of the plurality of game outcomes or the plurality of separate game outcomes, and wherein the plurality of perspectives is constrained to a portion of the 3-D gaming environment above the array.

56.   (Currently Amended) The method of claim 54 wherein the arrangement comprises an array of the plurality of game outcomes or the plurality of separate game outcomes on a substantially cylindrical surface, and wherein the plurality of perspectives is constrained such that the plurality of game outcomes or the plurality of separate game outcomes ~~are~~ is only viewable normal to the cylindrical surface from a fixed distance.

57.   (Original) The method of claim 54 wherein the arrangement comprises pay lines on a plurality of virtual slot machine reels, and wherein the plurality of perspectives is constrained to viewing of the pay lines.

58.   (Original) The method of claim 54 wherein the plurality of perspectives is constrained by restricting at least one of a plurality of degrees of freedom.

59.   (Currently Amended) The method of claim 58 wherein the degrees of freedom ~~comprises~~ <u>comprise</u> up/down, forward/reverse, left/right, roll, pitch, yaw, and zoom in/zoom out.

60.   (Original) The method of claim 58 wherein the degrees of freedom correspond to any of a Cartesian coordinate system, a polar coordinate system, and a spherical coordinate system.